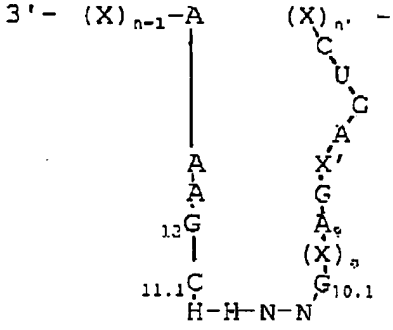
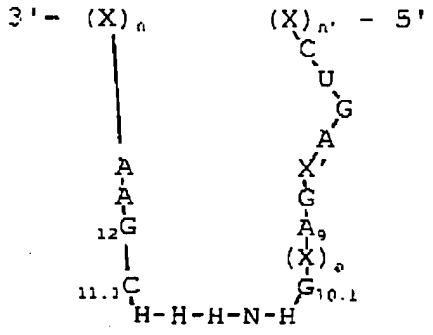
In the Claims

Please cancel claims 25-30 without prejudice to applicants' rights to pursue the subject matter of these claims in this or a related application.

Please amend claims 21 and 31 by replacing all prior versions of the claims pursuant to 37 C.F.R. §1.121 as modified by 68 Fed. Reg. 38611 (June 30, 2003) as indicated below.

1. (Previously presented) A compound of the formula IA or IB:





wherein each X represents a nucleotide which may be the same or different and may be substituted or modified in its sugar, base or phosphate; and wherein $G_{10.1}$ and $C_{11.1}$ each represent a nucleotide which may be substituted or modified in its sugar (which may be ribose or deoxyribose), base or phosphate;

wherein each of C, G, A and U represents a ribonucleotide

which may be substituted or modified in its sugar, base or phosphate;

wherein each of $(X)_n$, $(X)_{n-1}$-A and $(X)_{n'}$ represents an oligonucleotide having a pre-determined sequence which hybridizes with an RNA target sequence to be cleaved, such RNA target sequence not being present within the compound, and each of n and n' represents an integer which defines the number of nucleotides in the oligonucleotide;

wherein X' represents a ribonucleotide selected from C, G, A and U which may be substituted or modified in its sugar, base or phosphate;

wherein a defines the number of nucleotides in $(X)_a$ and may be 0 or 1 and if 0, the A located 5' of $(X)_a$ is bonded to the G located 3' of $(X)_n$;

wherein each solid line represents a chemical linkage providing covalent bonds between the nucleotides located on either side thereof;

wherein each N represents a nucleotide selected from C, G, A and U/T which may be substituted or modified in its sugar (which may be ribose or deoxyribose), base or phosphate and wherein each H represents a nucleotide selected from C, A and U/T, which may be substituted or modified in its sugar (which may be ribose or deoxyribose), base or phosphate; with the proviso that the sequence 5'-NNHH-3' is not UUUU or TTTT, CUCC, AAUU or GGCA.

2. (Previously presented) The compound of claim 1, wherein in the formula IB the oligonucleotide 3'-$(X)_n$- is 3'-$(X)_{n-1}$-A-.

3. (Original) The compound of claim 1, wherein $(X)_a$ is absent.

4. (Original) The compound of claim 1, wherein the sum of n+n' is greater than 14.

5. (Previously presented) The compound of claim 1, wherein the sequence 5'-NNHH-3' is a linker sequence selected from the following classes of linker sequences:
Class I: YRHH, wherein Y is C or U, R is G or A, and H is C, A or U;
Class II: DYHH, wherein D is G, A or U, Y is C or U, and H is C, A or U;
Class III: GHHA, wherein H is C, A or U; and
Class IV: WYHH, wherein W is A or U, Y is C or U, and H is C, A or U.

6. (Original) The compound of claim 5, wherein the linker sequence is selected from the sequences CGUU, UGUU and UAAC.

7. (Original) The compound of claim 5, wherein the linker sequence is a sequence of the class WYHH, wherein W is A or U, Y is C or U, and H is C, A or U.

8. (Original) The compound of claim 7, wherein the linker sequence is selected from the sequences ACCC, AUUU, UCCC, AUUC, AUUA, ACAC, AUAA and AUAC.

9. (Original) The compound of claim 7, wherein the linker sequence is the sequence UUHH, wherein H is C, A or U.

10. (Original) The compound of claim 9, wherein the linker sequence is selected from the sequences UUAC, UUCC, UUUC, UUUA, UUAA and UUAU.

11. (Original) The compound of claim 5, wherein the linker sequence is selected from the sequences GUAA and GAUA.

12. (Previously presented) The compound of claim 1, wherein the sequence 5'-HNHHH-3' in the compound of formula IB is selected from the sequences UCCCA, UCCCC, UCCUA, AAUUU, UUAAA, UUUUA, UGUCC, UGUUA and CACCC.

13. (Previously presented) The compound of claim 12, wherein the sequence 5'-HNHHH-3' in the compound of formula IB is selected from the sequences UCCCC, UGUCC and CACCC.

14. (Original) The compound of claim 1, wherein each nucleotide in the linker sequence 5'-NNHH-3' or the linker sequence 5-HNHHH-3[1] is a deoxyribonucleotide.

15. (Original) A composition which comprises a compound of claim 1 in association with an acceptable carrier.

16. (Original) A composition which comprises a compound of claim 5 in association with an acceptable carrier.

17. (Original) An oligonucleotide transfer vector containing a nucleotide sequence which on transcription gives rise to the compound of claim 1 or claim 5.

18. (Original) The oligonucleotide transfer vector of claim 17, wherein the transfer vector is a bacterial plasmid, a bacteriophage DNA, a cosmid, or an eukaryotic viral DNA.

19. (Original) The oligonucleotide transfer vector of claim 17, wherein the oligonucleotide transfer vector is a plant DNA virus, a geminivirus or an infective phage particle.

20. (Original) The oligonucleotide transfer vector of claim 17,

wherein the oligonucleotide transfer vector is packaged and contains the promoter sequences for RNA polymerase II or RNA polymerase III.

21. (Currently Amended) A host cell transformed *in vitro* by the transfer vector of claim 17.

22. (Original) The host cell of claim 21, wherein the host cell is a prokaryotic host cell or an eukaryotic host cell.

23. (Original) The prokaryotic host cell of claim 22, wherein the prokaryotic host cell is an *E.coli* host cell.

24. (Original) The eukaryotic host cell of claim 22, wherein the eukaryotic host cell is a monkey COS host cell, a Chinese hamster ovary host cell, a mammalian host cell or a plant host cell.

25-30. (Canceled)

31. (Currently Amended) A method of cleaving a target mRNA in a host cell *in vitro* which comprises administering to the host cell an effective amount of a compound of claim 1 or claim 5, or a transfer vector which on transcription expresses a compound of claim 1 or claim 5.

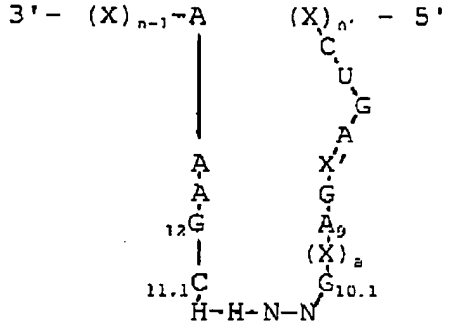
32. (Previously presented) The compound of claim 1 or claim 5 which further comprises an antisense nucleic acid which hybridizes with an RNA target sequence.

33. (Previously presented) The compound of claim 1 or claim 5 which further comprises at least one additional non-naturally occurring oligonucleotide compound which

comprises nucleotides whose sequence defines a conserved catalytic region and nucleotides whose sequence hybridizes with a predetermined target sequence.

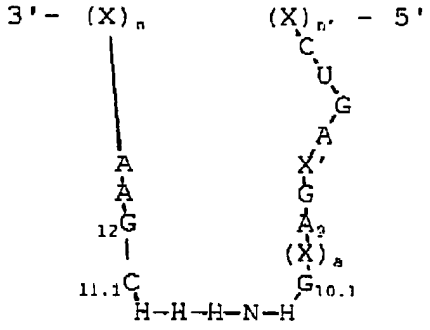
34. (Original) The compound of claim 33, wherein the additional non-naturally occurring oligonucleotide compound is a hammerhead ribozyme, a miniribozyme, a hairpin ribozyme, a hepatitis delta ribozyme, an RNAase P ribozyme, a Group I intron, or a combination thereof.

35. (Previously presented) The compound of claim 1 having the formula:



IA

36. (Previously presented) The compound of claim 1 having the formula:



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